APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,063	09/19/2006	Kazuhisa Misono	JP920040033US1	3682

71474   7590   12/02/2011
Steven E. Bach Attorney at Law
10 Roberts Road
Newtown Square, PA 19073

EXAMINER
TRUONG, CAMQUY

ART UNIT	PAPER NUMBER
2196	

MAIL DATE	DELIVERY MODE
12/02/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *26 August 2011*.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____ ; the restriction requirement and election have been incorporated into this action.
4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5) ☒ Claim(s) *1-16* is/are pending in the application.
   5a) Of the above claim(s) _____ is/are withdrawn from consideration.
6) ☐ Claim(s) _____ is/are allowed.
7) ☒ Claim(s) *1,3,6,7,9,10 and 12-16* is/are rejected.
8) ☒ Claim(s) *2,4,5,8 and 11* is/are objected to.
9) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10) ☐ The specification is objected to by the Examiner.
11) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
       1. ☐ Certified copies of the priority documents have been received.
       2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date *9/16/2011*.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

1.   Claims 1-16 are pending and they are presented for examination.

2.   In a telephonic interview with applicant's representative, Steven Bach on or about

9/16/2011, the examiner suggests an amendment to independent claims 1, 6, 9, 12 and

13 to put the present application in condition for allowance. However, applicant's

representative did not accept the proposed amendments.

Prosecution Reopened After Appeal Brief

In view of the Appeal Brief filed on 09/06/2011, PROSECUTION IS HEREBY

REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following

two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply

under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed

by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and

appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth

in 37 CFR 41.20 have been increased since they were previously paid, then appellant

must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution

by, signing below:

/Emerson C Puente/

Supervisory Patent Examiner, Art Unit 2196

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a)A patent may not be obtained though the invention is not identically disclosed or described as set forth
in section 102 of this title, if the differences between the subject matter sought to be patented and the
prior art are such that the subject matter as a whole would have been obvious at the time the invention
was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability
shall not be negatived by the manner in which the invention was made.

4.   Claims 1, 3, 6-7, 9 and 13 are rejected under 35 U.S.C. 103(a) as being

unpatentable by Kisor (U.S. 6,098,091) in view of Williams (U.S. 6,202,096).

Kisor was cited in the previous office action.

5.   As to claim 1, Kisor teaches the invention as claimed including: a computer

system for performing grid computing with a plurality of computers connected through a

network (*Fig. 1*), the computer system comprising:

a center server (*central computer 104, col. 2, line 24; col. 3, line 45*) for requesting

the computers on the network to execute a job (*distributing tasks from a central computer*

to remote computers over wire area network, col. 2, lines 58-60; col. 3, line 61 – col. 4, line 3);

and

a process server, which is one of the plurality of computers, (*remote computers*)

for executing the job in response to a request from the center server (*task assigned to*

remote computers to be completed, col. 4, lines 1-2; col. 4, lines 48-50);

wherein the center server comprises:

a scheduler section (*the scheduler 228, col. 4, lines 44-45*) which assigns a job to be

executed to the process server (*the scheduler 228 organizes task 232 that need to be*

completed with the resource available information 224 transmitted by the remote computer 208,

col. 4, lines 44-48; assign assignment tasks to be completed to the appropriate remote

computers, col. 4, line 51 –col. 5, line 17; col. 6, lines 16-20) and issues a job execution

request (*the management program will follow scheduler instructions (job execution request)*

and will send the assigned task to the remote computer, col. 5, lines 50-52); and

an agent section (*management program 144, col. 3, line 61*) which manages

information about the process server (*the management program 144 polls the remote*

computers 108, 112, 116 and 120 as to times of day when the remotes are available, col. 3, lines

61-67), receives the job execution request issued by the scheduler section, and sends

the job execution request to the process server to which the requested job has been

assigned *(the central computer using the management program will follow scheduler*

instructions and will send the assigned task to the remote computer, col. 5, lines 50-53; col. 2,

lines 24-30).

Kisor does not explicitly teach sends the job execution request to process server

in a manner selected to accommodate an access type of the process server. However,

Williams teaches sends the job execution request to process server in a manner

selected to accommodate an access type of the process server (*whether the job is initiated by "push" or "pull" all receivers must at some point impress an in-surface onto devices that connect to them, which signals that they are able to receive documents, col.45, lines 5-25; in a "push", this step is the starting of a job by the sender through impressing the top-level surface of the job on to the receiver's in-surface. In a "pull", this step is also the starting of a job through the same means, but in this case in response to the surface request from the receiver, col. 45, lines 56-62; col. 46, lines 35-39).*

It would have been obvious to one of ordinary skill in the art at the time invention was made to incorporate the teaching of sends the job execution request to process server in a manner selected to accommodate an access type of the process server as taught by Williams into Kisor because this would improve efficiency of sending information between sending device and receiving device; thereby, benefit of job receiving devices for processing job according to receiving information from a job sending device.

6.   As to claim 3, Kisor teaches the agent section obtains information about the capacity and operating status of the process server corresponding to the agent section from the process server and manages the information (*sending to reply indicating available time and computational capabilities of said remote computer, col. 8, lines 4-12; col. 3, line 61 – col. 4, line 3*), and the scheduler section assigns the job to the process server on the basis of the information managed by the agent section (*the scheduler 228 organizes task 232 that need to be completed with the resource available information 224 transmitted by the remote computer 208, col. 4, lines 44-48; assign assignment tasks to be completed to the*

appropriate remote computers, col. 4, line 51 –col. 5, line 17; col. 6, lines 16-20; col. 8, lines 12-16).

7.   As to claim 6, it is rejected for the same reason as claim 1 above.

8.   As to claim 7, Kisor teaches the agent section is provided for each of computers constituting the grid computing system (*Fig. 1 shows program 144 is provided for remote computers 108, 112, 115 and 120; management program 144 contains instructions executed by the central computer which polls the remote computers 108, 112, 116 and 120, col. 3, lines 61-63*) and makes the request for execution of the job by using an individual communication scheme established between the agent section and a corresponding computer (*the central computer using the management program will follow scheduler instructions and will send the assigned task to the remote computer, col. 5, lines 50-53*).

9.   As to claim 9, Kisor teaches a server for scheduling jobs and requesting execution of the jobs in a grid computing system (*col. 2, lines 25-30*), the server comprising:

a processor (*central computer 104, col. 3, line 19-20*); and

a memory (*random access memory 128, col. 3, line 30*)operably connected to the processor, and having encoded thereon instructions executable by the processor (*col. 3, lines 45-46*), comprising:

an agent section which manages information about the capacity and operating status of a computer constituting the grid computing system (*the management program 144 polls the remote computers 108, 112, 116 and 120 as to times of day when the remotes are*

available, col. 3, lines 61-67; sending to reply indicating available time and computational

capabilities of said remote computer, col. 8, lines 4-12), relays communication with the

computer, and performs transmission and reception (*the management program will follow*

scheduler instructions and will send the assigned task to the remote computer, col. 5, lines 50-

53/ at a schedule time when the remote computer is available to operate in the contractor

relationship, the central computer ... transfers the instructions and data necessary for the remote

computer to complete the task, col. 6, lines 31-35; inform the central computer on the completion

of the task, col. 6, lines 53-55); and

a scheduler section which assigns, on the basis of the information managed by

the agent section, a job to be executed by the computer (*the scheduler 228 organizes task*

232 that need to be completed with the resource available information 224 transmitted by the

remote computer 208, col. 4, lines 44-48; assign assignment tasks to be completed to the

appropriate remote computers, col. 4, line 51-col. 5, line 17; col. 6, lines 16-20), and requests

the computer to which the job has been assigned to execute the job through the agent

section (*the central computer using the management program will follow scheduler instructions*

and will send the assigned task to the remote computer, col. 5, lines 50-53).

Kisor does not explicitly teach performs transmission according to an access type

of the computer. However, Williams teaches performs transmission according to an

access type of the computer (*whether the job is initiated by "push" or "pull" all receivers*

must at some point impress an in-surface onto devices that connect to them, which signals that

they are able to receive documents, col.45, lines 5-25; in a "push", this step is the starting of a

job by the sender through impressing the top-level surface of the job on to the receiver's in-

surface. In a "pull", this step is also the starting of a job through the same means, but in this case

in response to the surface request from the receiver, col. 45, lines 56-62; col. 46, lines 35-39).

It would have been obvious to one of ordinary skill in the art at the time invention

was made to incorporate the teaching of performs transmission according to an access

type of the computer as taught by Williams into Kisor because this would improve

efficiency of sending information between sending device and receiving device; thereby,

benefit of job receiving devices for processing job according to receiving information

from a job sending device.

10.   As to claim 13, it is rejected for the same as claim 1 above, In addition, Kisor

teaches a computer program product, comprising a computer readable non-transitory

storage medium having encoded thereon:

computer instructions for storing in recording means and managing information

about a process server which constitutes a grid computing system (*Fig. 1 shows central*

computer connects to remote computers) (*Fig. 3B shows resource available file 308, col. 4, line*

53 – col. 5, line 11) and executes a job (*tasks assigned to remote computers to be completed,*

col. 4, lines 1-2);

computer instructions for assigning a job to be executed to the process server on

the basis of information about the process server (*the scheduler 228 organizes task 232 that*

need to be completed with the resource available information 224 transmitted by the remote

computer 208, col. 4, lines 44-48; assign assignment tasks to be completed to the appropriate

remote computers, col. 4, line 51-col. 5, line 17; col. 6, lines 16-30) and issuing a job

execution request (*the management program will follow scheduler instructions (job execution*

request) and send the assigned task to the remote computer, col. 5, lines 50-53); and

computer instructions for receiving the issued request and sending the request to

the process server to which the requested job has been assigned(*the central computer*

using the management program will follow scheduler instructions and will send the assigned

task to the remote computer, col. 5, lines 50-53).

Kisor does not explicitly teach sends the job execution request to process server

in a manner selected to accommodate an access type of the process server. However,

Williams teaches sends the job execution request to process server in a manner

selected to accommodate an access type of the process server (*whether the job is*

initiated by "push" or "pull" all receivers must at some point impress an in-surface onto devices

that connect to them, which signals that they are able to receive documents, col.45, lines 5-25; in

a "push", this step is the starting of a job by the sender through impressing the top-level surface

of the job on to the receiver's in-surface. In a "pull", this step is also the starting of a job through

the same means, but in this case in response to the surface request from the receiver, col. 45,

lines 56-62; col. 46, lines 35-39).

It would have been obvious to one of ordinary skill in the art at the time invention

was made to incorporate the teaching of sends the job execution request to process

server in a manner selected to accommodate an access type of the process server as

taught by Williams into Kisor because this would improve efficiency of sending

information between sending device and receiving device; thereby, benefit of job

receiving devices for processing job according to receiving information from a job

sending device.

11.   Claims 10, 14 and 15 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kisor (U.S. 6,098,091) in view of Williams (U.S. 6,202,096), as

applied to claims 1, 7, 9 and 13 above, further in view of Akashi et al. (U.S.

2002/0198924).

12.   As to claim 10, Akashi teaches separate agent section are provided for each of

computers constituting the system (*Fig. 1 shows each computer 110 -1 to 110-m has*

associated cluster node scheduler), and the scheduler section requests execution of a job

through an agent section corresponding to a computer to which the job has been

assigned (*col. 5, line 54-col. 6, line 20*).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to incorporate the teaching of separate agent section are provided

for each of computers constituting the system, and the scheduler section requests

execution of a job through an agent section corresponding to a computer to which the

job has been assigned as disclosed by Akashi into the combination of Kisor and

Williams' system because these systems are directing to the system that is capable of

apportioning tasks among computer connected via wide area networks, and by

incorporating the teaching of Akashi would improve the combination of Kisor and

Williams' system by allowing each cluster node schedulers to assign each process to a

corresponding computer from among the computers; thereby, improving the

performance of the computer system.

13.   As to claim 14, Akashi teaches the computer instructions for sending a request to

the process server send the request regardless of an operating status of the process

server (*cluster node characteristic information is held by the cluster scheduler 250, paragraph*

[0056]/ the cluster scheduler 150 has a function of assigning each process to one of the

computers base on characteristic (capacity), paragraphs [0044], [0047], [0072] [0092].

Examiner interprets the disclosure above as the request for execution of the job regardless of the

operating status of the computer to which the job has been assigned).

14.   As to claim 15, Kisor teaches the computer instructions for sending the request to

the process server cause the computer to send the request to at least a first one or a

plurality of process servers in response to polling accesses from the process servers

(*the central computer polls the remote computers as to time of day the remote computers will be*

available and transmits the task to the assigned remote computers, col. 2, lines 24-30; col. 3, line

61-col. 4, line 3).

        Akashi teaches send the request to at least a second one of a plurality of process

servers at timing managed by the computer (*immediately before the cluster node schedulers*

assigning each process to each of the processors (220-11 through 220-34)/ each of the

processors (220-11 through 220-12, . . . , 220-31 through 220-34) executes an assigned process,

paragraphs [0070], [0076], [0110] and [0077]).

15.   Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kisor (U.S. 6,098,091) in view of Williams (U.S. 6,202,096), as applied to claim 13 above, and further in view of Aziz et al. (U.S. 6,779,016).

16.   As to claim 16, Kisor teaches the computer instructions for sending the request received from the scheduler section to the process servers connected in response to polling accesses from the process servers (*the central computer polls the remote computers as to time of day the remote computers will be available and transmits the task to the assigned remote computers, col. 2, lines 24-31; col. 3, line 61-col. 4, line 3*).

The combination of Kisor and Willams do not explicitly teach at least some of the process servers are connected to the center server through a firewall. However, Aziz teaches at least some of the process servers are connected to the center server through a firewall (*each of the web servers coupled the load-balancer 112 and load-balancer 112 couple to a firewall, col. 2, lines 53-59*).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of including at least some of the process servers are connected to the center server through a firewall as disclosed by Aziz into Kisor and Willams' system because it would protect the web servers from unauthorized traffic.

17.   Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akashi et al. (U.S. 2002/0198924) in view of Williams (U.S. 6,202,096)..

Akashi was cited in previous office action.

18.   As to claim 12, Akashi teaches the invention substantially as claimed including: a

job execution control method using a computer to schedule jobs and request execution

of the jobs in a grid computing system (*Fig. 1*), comprising the steps of:

the computer (*a computer cluster system, paragraph [0040]*) assigning a job on the

basis of the capacity of a process server constituting the grid computing the system

(*Fig. 1*), stored in a storage, and executing a job of the jobs, regardless access type of

the process server (*cluster node characteristic information is held by the cluster scheduler*

250, paragraph [0056]; the cluster scheduler 150 has a function of assigning each process to

one of the computer's basic of the characteristics, paragraphs [0044], [0047], [0072] [0092].

Note that Akashi discloses assigning jobs for executing without mention the access type of the

process server. Thus, Akashi teaches executing a job of the jobs, regardless access type of the

process server).

the computer issuing a job execution request to the process server to which the

job has been assigned (*each of the cluster node schedulers 240-1 through 240-3) assigns each*

process to each of the processors (220-11 through 220-34) on the basis of the process

assignment received, paragraph [0076]; each of the processors (220-11 through 220-12, . . . ,

220-31 through 220-34) executes an assigned process, paragraphs [0070], [0076], and [0110]);

and

the computer holding temporarily the issued job execution request (*the cluster*

scheduler (250) sends process assignment information about a process to each of the cluster

node schedulers (240-1 through 240-3), which hold information about the processes, paragraphs

[0060] and [0076]) and sending the job execution requests to the process server to which the job has been assigned (*the cluster node scheduler (250) and the cluster node schedulers (240-1 through 240-3) assigns each process to each of the processors (220-11 through 220-34)/ each of the processors (220-11 through 220-12, . . . , 220-31 through 220-34) executes an assigned process, paragraphs [0070], [0076], and [0110]*).

Akashi does not explicitly teach sending the job execution requests to the process server depending on the operating status of the process server. However, Williams teaches sending the job execution requests to the process server depending on the operating status of the process server (*whether the job is initiated by "push" or "pull" all receivers must at some point impress an in-surface onto devices that connect to them, which signals that they are able to receive documents, col.45, lines 5-25; in a "push", this step is the starting of a job by the sender through impressing the top-level surface of the job on to the receiver's in-surface. In a "pull", this step is also the starting of a job through the same means, but in this case in response to the surface request from the receiver, col. 45, lines 56-62; col. 46, lines 35-39*).

It would have been obvious to one of ordinary skill in the art at the time invention was made to incorporate the teaching of sending the job execution requests to the process server depending on the operating status of the process server as taught by Williams into Akashi because this would improve efficiency of sending information between sending device and receiving device; thereby, benefit of job receiving devices for processing job according to receiving information from a job sending device.

Allowable Subject Matter

19.   Claims 2, 4, 5, 8 and 11 are objected to as being dependent upon a rejected

base claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to CAMQUY TRUONG whose telephone number is

(571)272-3773. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Emerson C. Puente can be reached on (571)272-3652. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Camquy Truong/
Primary Examiner, Art Unit 2196